



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,732	04/15/2004	T. Scott Engle	IFC 376	8812
23581	7590	06/30/2005	EXAMINER	
KOLISCH HARTWELL, P.C. 520 S.W. YAMHILL STREET SUITE 200 PORTLAND, OR 97204			MAHONEY, CHRISTOPHER E	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/825,732

Applicant(s)

ENGLE ET AL.

Examiner

Christopher E. Mahoney

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12, 14-23, 25-28 and 30-45 is/are rejected.
- 7) ☒ Claim(s) 11 and 24 13 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date May 21, 2004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 35, 37, 43 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Rodriguez, Jr. et al. (U.S. Patent No. 6,520,464). Rodriguez teaches a projection unit 100 comprising: a projector 106 including a wide-angle lens system (col. 5, line 58), the projector positioned substantially adjacent (figures 3-8) a display screen 102 and configured to generate an image on the display surface; and a moveable element 108/110 supporting the projector configured to enable selective lateral positioning of the projector to move the projector from a storage position (fig. 4) to an operation position (figure 3). Figure 3 depicts projection at a steep angle (at least 30 degrees to the screen)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 12, 14, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez, Jr. et al. (U.S. Patent No. 6,520,464) in view of an airplane. Rodriguez already recognizes that projection systems may be placed on airplanes. It would have been obvious to

Art Unit: 2851

one of ordinary skill in the art at the time the invention was made to place the system of Rodriguez (and therefore the screen) on an airplane for the purpose of shipping/transporting the system to a customer/desired location.

Claims 1-2, 6-7, 9-10, 12, 14-16, 19, 22, 26, 28-30, 32-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419). Hoffman teaches a projection unit comprising: a projector 44, the projector positioned substantially adjacent (figures 1-2) a display screen 22 and configured to generate an image on the display surface; and a moveable element 14/46 supporting the projector configured to enable selective lateral positioning of the projector to move the projector from a storage position (fig. 7) to an operation position (figure 1). Hoffman does not teach that the projector comprises a wide angle lens system. Holder teaches in col. 1, line 64 that it was known to use a wide angle lens system in a collapsible projection system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Holder for the purpose of minimizing the size of the projection unit. The screen is being interpreted as a wall between the viewer and the interior optics. Regarding claims 22, 29 and 38, Hoffman in view of Holder discloses the claimed invention except for the angle of projection. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a 30 degree angle for the purpose of utilizing an optimum range. The applicant should note that it has been held that where the general working conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Art Unit: 2851

Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Kuwa (U.S. Patent No. 6,624,952). Hoffman in view of Holder teaches the salient features of the claimed invention except for a relay lens generating a distorted image and a wide angle lens canceling out the distortion. Kuwa teaches a wide-angle lens system having a first stage (CyrR) to create a distorted intermediate image and a second, wide angle lens stage IGTFI that causes distortion to substantially cancel the distortion from the intermediate image and to project a substantially non-distorted image corresponding to the intermediate image on the screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Kuwa for the purpose of providing a high performance and high resolution.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Sunaga (U.S. Pub. No. 2002/0008853). Hoffman in view of Holder teaches the salient features of the claimed invention except for at least two planar direction changing elements. Sunaga teaches that it was known to use at least two planar direction changing elements in a wide angle lens system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Sunaga for the purpose of further compacting size.

Claims 20 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Goto (U.S. Patent No. 6,023,369). Hoffman in view of Holder teaches the salient

Art Unit: 2851

features of the claimed invention except for a Fresnel lens screen. Goto teaches in the figures that it was known to utilize a Fresnel lens screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Goto for the purpose of obtaining a desired angle of visibility.

Claims 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Koizumi (U.S. Patent No. 5,982,537). Hoffman in view of Holder teaches the salient features of the claimed invention except for a roll up screen. Koizumi teaches in the figures that it was known to utilize a roll up screen. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by Koizumi for the purpose of easily accommodating the screen when not used.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 4,281,352) in view of Holder (U.S. Patent No. 5,322,419) and further in view of Maslow (U.S. Patent No. 5,580,143). Hoffman in view of Holder teaches the salient features of the claimed invention except for the projector being removable. Maslow teaches in figures 31-34 that it was known to utilize a removable projector. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the features taught by teaches for the purpose of replacing damaged components.

Allowable Subject Matter

Claims 11, 13, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2851

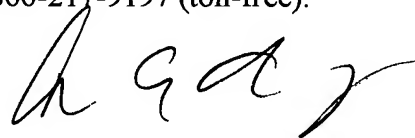
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Christopher E Mahoney
Primary Examiner
Art Unit 2851